Test Report
Rate of Spread of Tack Coat

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. R. Satheesh
Location	At Site
Material	Bitumen
Sample No	9
Date	22-May-2018

Sl. No.	Determination	Unit	Test No 1 Longitudinal Distribution		
1	Size of Plate (mxn)	m^2	0.2x0.2	0.2x0.2	0.2x0.2
2	Area of the Plate (a)	m^2	0.04	0.04	0.04
3	Initial weight of the empty Plate (b)	kg	1.641	1.641	1.641
4	Final weight of plate after application of Tack Coat (c)	kg	1.657	1.657	1.651
5	Weight of Prime coat/ Tack Coat (d = c-b)	kg	0.016	0.016	0.01
6	Rate of spread (d/a)	kg / m^2	0.400	0.400	0.250
7	Average	kg / m^2	0.350		
8	Specified Limit	kg / m^2	Not less than 0.25 kg / m^2		

Results: Rate of Spread of Prime Coat / Tack Coat is: 0.350 kg / m2

Note:

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Yelahanka Zone
Bangalore

Test Report
Rate of Spread of Tack Coat

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. R. Satheesh
Location	At Site
Material	Bitumen
Sample No	10
Date	29-May-2018

Sl. No.	Determination	Unit	Test No 1		
			Longitudinal Distribution		
1	Size of Plate (mxn)	m^2	0.2x0.2	0.2x0.2	0.2x0.2
2	Area of the Plate (a)	m^2	0.04	0.04	0.04
3	Initial weight of the empty Plate (b)	kg	1.641	1.648	1.641
4	Final weight of plate after application of Tack Coat (c)	kg	1.657	1.653	1.651
5	Weight of Prime coat/ Tack Coat (d = c-b)	kg	0.016	0.005	0.01
6	Rate of spread (d/a)	kg / m^2	0.400	0.125	0.250
7	Average	kg / m^2	0.258		
8	Specified Limit	kg / m^2	Not less than 0.25 kg / m^2		

Results: Rate of Spread of Prime Coat / Tack Coat is: 0.258 kg / m2

Note:

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Test Report
Rate of Spread of Tack Coat

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. R. Satheesh
Location	At Site
Material	Bitumen
Sample No	11
Date	29-May-2018

Sl. No.	Determination	Unit	Test No 1 Longitudinal Distribution		
1	Size of Plate (mxn)	m^2	0.2x0.2	0.2x0.2	0.2x0.2
2	Area of the Plate (a)	m^2	0.04	0.04	0.04
3	Initial weight of the empty Plate (b)	kg	1.641	1.641	1.641
4	Final weight of plate after application of Tack Coat (c)	kg	1.658	1.654	1.651
5	Weight of Prime coat/ Tack Coat (d = c-b)	kg	0.017	0.013	0.01
6	Rate of spread (d/a)	kg / m^2	0.425	0.325	0.25
7	Average	kg / m^2	0.333		
8	Specified Limit	kg / m^2	Not less than 0.25 kg / m^2		

Results: Rate of Spread of Prime Coat / Tack Coat is: 0.333 kg / m2

Note:

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Test Report
Rate of Spread of Tack Coat

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. R. Satheesh
Location	At Site
Material	Bitumen
Sample No	12
Date	29-May-2018

Sl. No.	Determination	Unit	Test No 1 Longitudinal Distribution		
1	Size of Plate (mxn)	m^2	0.2x0.2	0.2x0.2	0.2x0.2
2	Area of the Plate (a)	m^2	0.04	0.04	0.04
3	Initial weight of the empty Plate (b)	kg	1.641	1.648	1.641
4	Final weight of plate after application of Tack Coat (c)	kg	1.657	1.653	1.65
5	Weight of Prime coat/ Tack Coat (d = c-b)	kg	0.016	0.012	0.009
6	Rate of spread (d/a)	kg / m^2	0.4	0.3	0.225
7	Average	kg / m^2	0.308		
8	Specified Limit	kg / m^2	Not less than 0.25 kg / m^2		

Results: Rate of Spread of Prime Coat / Tack Coat is: 0.308 kg / m2

Note:

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Test Report
Aggregate Impact Value

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 4) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At Site
Material	Coarse Aggregate
Sample No	1
Date	6-May-2018

Sl. No.	Determination	Unit	Trails	
1	Weight of empty cylinder, w1	gm	960	960
2	Weight of container filled with Aggregate, w2	gm	1308	1310
3	Weight of the Aggregate before compaction, (w2 - w1) = w3	gm	348	350
4	Weight of the sample passing through 2.36 mm IS sieves after Impact, w4	gm	80	81
5	Weight of the sample retained on 2.36 mm IS sieve after Impact, w5	gm	268	269
6	Aggregate Impact Value (w4 / w3)x100	%	22.99	23.14
7	Specified Limit	%	24	

Results: Average Aggregate Impact Value: **23.07** %

Note:

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Test Report
Aggregate Impact Value

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 4) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At Site
Material	Coarse Aggregate
Sample No	2
Date	13-May-2018

Sl. No.	Determination	Unit	Trails	
1	Weight of empty cylinder, w1	gm	960	960
2	Weight of container filled with Aggregate, w2	gm	1313	1315
3	Weight of the Aggregate before compaction, (w2 - w1) = w3	gm	353	355
4	Weight of the sample passing through 2.36 mm IS sieves after Impact, w4	gm	78	79
5	Weight of the sample retained on 2.36 mm IS sieve after Impact, w5	gm	275	276
6	Aggregate Impact Value (w4 / w3)x100	%	22.10	22.25
7	Specified Limit	%	24	

Results: Average Aggregate Impact Value: **22.17** %

Note:

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Test Report
Aggregate Impact Value

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 4) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	At Site
Material	Coarse Aggregate
Sample No	3
Date	20-May-2018

Sl. No.	Determination	Unit	Trails	
1	Weight of empty cylinder, w1	gm	960	960
2	Weight of container filled with Aggregate, w2	gm	1318	1320
3	Weight of the Aggregate before compaction, (w2 - w1) = w3	gm	358	360
4	Weight of the sample passing through 2.36 mm IS sieves after Impact, w4	gm	76	77
5	Weight of the sample retained on 2.36 mm IS sieve after Impact, w5	gm	282	283
6	Aggregate Impact Value (w4 / w3)x100	%	21.23	21.39
7	Specified Limit	%	24	

Results: Average Aggregate Impact Value: **21.31** %

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Test Report
Aggregate Particle Shape

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Hot Mix Plant
Material	Coarse Aggregates
Sample No	1
Date	6-May-2018

I.S. Sieves Size		Weight of Retained Sample on Each Sieve (minimum 200 Pieces) (gm)	Flakiness Index		Elongation Index	
Passing through IS Sieves (mm)	Retained on IS Sieves (mm)		Thickness Gauge	Weight of Aggregates in each fraction passing on thickness gauges (gm)	Length Gauge	Weight of Aggregates in Fraction retained on length gauges (gm)
63	50	0	33.9	0	-	0
50	40	0	27	0	81	0
40	25	0	19.5	0	58.5	0
31.5	25	0	16.95	0	-	0
25	20	1552	13.5	232	40.5	250
20	16	1441	10.8	120	32.4	147
16	12.5	952	8.55	147	25.6	154
12.5	10	464	6.75	66	20.2	72
10	6.3	230	4.89	52	14.7	59
	SW	4639	SWf	617	SWe	682

Flakiness Index 13.30 %
Elongation Index 14.70 %
Combined Flakiness and Elongation Indices : 28.00 %

Comments: Maximum allowable Combined Flakiness and Elongation Indices for Bituminous Concrete is 35%.

Note:

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Bangalore

Test Report
Aggregate Particle Shape

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Hot Mix Plant
Material	Coarse Aggregates
Sample No	2
Date	13-May-2018

I.S. Sieves Size		Weight of Retained Sample on Each Sieve (minimum 200 Pieces) (gm)	Flakiness Index		Elongation Index	
Passing through IS Sieves (mm)	Retained on IS Sieves (mm)		Thickness Gauge	Weight of Aggregates in each fraction passing on thickness gauges (gm)	Length Gauge	Weight of Aggregates in Fraction retained on length gauges (gm)
63	50	0	33.9	0	-	0
50	40	0	27	0	81	0
40	25	0	19.5	0	58.5	0
31.5	25	0	16.95	0	-	0
25	20	1557	13.5	237	40.5	255
20	16	1446	10.8	125	32.4	152
16	12.5	957	8.55	152	25.6	159
12.5	10	469	6.75	71	20.2	77
10	6.3	235	4.89	57	14.7	64
	SW	4664	SWf	642	SWe	707

Flakiness Index 13.77 %

Elongation Index 15.16 %

Combined Flakiness and Elongation Indices : 28.92 %

Comments: Maximum allowable Combined Flakiness and Elongation Indices for Bituminous Concrete is 35%.

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Test Report
Aggregate Particle Shape

Project Name	Improvements of roads for layout where the Cauvery and UGD works are in progress in Ward No.05 and Ward No.06 Byatarayanapura Sub Division
Client	Executive Engineer Project Yellahanka Division
Job No	MCTPL/BBMP/Project Division Yelahanka ZONE /P-7/1/2017-2018
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. R. Satheesh
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Hot Mix Plant
Material	Coarse Aggregates
Sample No	3
Date	20-May-2018

I.S. Sieves Size		Weight of Retained Sample on Each Sieve (minimum 200 Pieces) (gm)	Flakiness Index		Elongation Index	
Passing through IS Sieves (mm)	Retained on IS Sieves (mm)		Thickness Gauge	Weight of Aggregates in each fraction passing on thickness gauges (gm)	Length Gauge	Weight of Aggregates in Fraction retained on length gauges (gm)
63	50	0	33.9	0	-	0
50	40	0	27	0	81	0
40	25	0	19.5	0	58.5	0
31.5	25	0	16.95	0	-	0
25	20	1562	13.5	242	40.5	260
20	16	1451	10.8	130	32.4	157
16	12.5	962	8.55	157	25.6	164
12.5	10	474	6.75	76	20.2	82
10	6.3	240	4.89	62	14.7	69
	SW	4689	SWf	667	SWe	732

Flakiness Index 14.22 %
Elongation Index 15.61 %
Combined Flakiness and Elongation Indices : 29.84 %

Comments: Maximum allowable Combined Flakiness and Elongation Indices for Bituminous Concrete is 35%.

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